GENERAL PROJECT NOTES

A. COORDINATE THE INSTALLATION OF ELECTRICAL MATERIAL ITEMS WITH THE PROJECT ENGINEER.

B. FIELD VERIFY DIMENSIONS AND INSTALLED INFRASTRUCTURE USING THE CIVIL ENGINEERING DRAWINGS.

C. SCHEDULE 80 PVC SLEEVES SHALL BE USED TO PROTECT THE UNDERGROUND FEEDERS AND BRANCH CIRCUITS WHEN PASSING UNDER PAVEMENT (TRAILS AND ROADWAYS) AND NON-PAVED TRAILS AND ROADWAYS.

SCHEDULE 80 PVC SLEEVES SHALL ALSO BE USED TO PROTECT UNDERGROUND FEEDERS AND BRANCH CIRCUITS WHEN THEY ARE INSTALLED ABOVE BURIAL DEPTH. SLEEVES SHALL BE TERMINATED WITH A SWEEP ELBOW AT BURIAL DEPTH.

D. THE WORD 'CONTRACTOR' ON THESE ELECTRICAL DRAWINGS MEANS THE ENTIRE CONTRACTOR TEAM.

E. COMPLY WITH PROVISIONS OF APPLICABLE CODES AND REQUIREMENTS FROM LOCAL AUTHORITIES HAVING JURISDICTION. IN THE EVENT OF CONFLICTING GUIDELINES BETWEEN MULTIPLE DIRECTIVES, THE MOST RESTRICTIVE SHALL PREVAIL.

F. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF PROJECT REQUIREMENTS AND PROVISION OF ADEQUATE AND TIMELY INFORMATION TO ALL TRADES CONCERNED FOR MATTERS INVOLVING MULTIPLE TRADES.

G. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL UTILITY LOCATES.

H. CATALOG SHEETS ARE INCLUDED WITH THE DRAWINGS FOR CONTRACTOR UNDERSTANDING. THE CONTRACTOR SHALL OBTAIN A COMPLETE DRAWING PACKAGE INCLUDING THE CIVIL ENGINEERING DRAWINGS FOR BOTH BIDDING AND CONSTRUCTION. ANYTHING LESS WILL PROVIDE INSUFFICIENT INFORMATION FOR THE CONTRACTOR TO PROPERLY BID AND CONSTRUCT THIS PROJECT.

I. SPECIFICATIONS ARE INCLUDED IN THE SPECIFICATION PACKAGE.

J. THE ELECTRICAL CONTRACTOR SHALL CAREFULLY EXAMINE THE CIVIL ENIGNEERING DRAWINGS AND THE BID FORM TO DETERMINE HOW THE ELECTRICAL AND ASSOCIATED WORK AS DESCRIBED ON THESE SHEETS AND ANY OTHER DRAWINGS BY REFERENCE, MUST BE BID WITH RESPECT TO BASE BIDS AND ALTERNATIVES, IF ANY.

K. THE WORD 'COORDINATE' MEANS CONTACTING THE RELEVANT PARTIES SUCH AS THE UTILITY(MISSION VALLEY POWER), THE PROJECT ENGINEER, ETC. TO DETERMINE THE EXACT REQUIREMENTS AND/OR FURTHER REFINE THE INSTALLATION SCOPE OF WORK REQUIREMENTS AND ADJUST THE INSTALLATION ACCORDINGLY. THIS WORK SHALL BE INCLUDED IN BASIC CONSTRUCTION SERVICES.

L. COORDINATE SPECIFICALLY WITH MISSION VALLEY POWER WITH REGARDS TO THE NEW SERVICES AND THE RELOCATION OF THE PRIMARY CONDUCTOR IN THE UPPER CAMPGROUND AREA OF WORK.

M. COORDINATE WITH THE OWNER AND THE TELEPHONE COMPANY (CENTURY LINK) FOR ADDING, REMOVING, MAINTAINING, AND ADDING A NEW SERVICE TO THE FOLLOWING LOCATIONS:
1. REMOVE TELEPHONE SERVICE FROM THE EXISTING HOST RV PEDESTALS BEING DEMOLISHED.
2. MAINTAIN EXISTING TELEPHONE SERVICE TO THE ENTRANCE STATION.
3. ADD NEW TELEPHONE SERVICE TO EACH OF THE TWO NEW HOST RV SITES.

OWNER WORK

THE OWNER IS UNDERTAKING CERTAIN WORK IN THE PARK IN ADVANCE OF THE GENERAL PROJECT WORK AS DESCRIBED IN THESE DOCUMENTS. THE WORK THAT THE OWNER IS GOING TO DO IS INCLUDED WITH THE NOTES IN *ITALICS* FOR CONVENIENCE.

INDEX OF ELECTRICAL SHEETS

CONDUCTOR TYPE AND INSTALLATION

USE THIS INSTALLATION GUIDE FOR ALL CONDUCTOR INSTALLATAIONS UNLESS OTHERWISE INDICATED.

CONDUCTOR 1
#2 TRIPLEX AL URD (2 HOTS AND A NEUTRAL) PLUS A #6 AL GROUND. DIRECT BURY IN ACCORDANCE WITH THE TRENCHING DETAIL. QUADRAPLEX EQUIVALENT IS ALSO ACCEPTABLE.

USE SCHEDULE 80 PVC SLEEVES WHEN INSTALLING UNDERNEATH PAVEMENT, ROADS, AND PATHS. USE SCHEDULE 80 SWEEP ELBOWS PLUS SCHEDULE 80 CONDUIT TO BRING THE DIRECT BURY CONDUCTORS UP FROM HORIZONTAL LOCATION IN THE TRENCH TO VERTICAL INTO THE PEDESTALS OR UP INTO PANELS.

CONDUCTOR 2
4/0 TRIPLEX AL URD (2 HOTS AND A NEUTRAL) PLUS A #6 AL GROUND. DIRECT BURY IN ACCORDANCE WITH THE TRENCHING DETAIL. QUADRAPLEX EQUIVALENT IS ALSO ACCEPTABLE.

USE SCHEDULE 80 PVC SLEEVES WHEN INSTALLING UNDERNEATH PAVEMENT, ROADS, AND PATHS. USE SCHEDULE 80 SWEEP ELBOWS PLUS SCHEDULE 80 CONDUIT TO BRING THE DIRECT BURY CONDUCTORS UP FROM HORIZONTAL LOCATION IN THE TRENCH TO VERTICAL INTO THE PEDESTALS OR UP INTO PANELS.

USE COMPRESSION CONNECTORS AND A NEMA 3R JUNCTION BOX AS REQUIRED TO TRANSITION FROM THE 4/0 CONDUCTORS TO ALUMINUM CONDUCTORS THAT FIT ON THE SOURCE AND DESTINATION EQUIPMENT LUGS.

CONDUCTOR 3
#10 UF (1 HOT, 1 NEUTRAL, AND A GROUND) DIRECT BURY IN ACCORDANCE WITH THE TRENCHING DETAIL.

USE SCHEDULE 80 PVC SLEEVES WHEN INSTALLING UNDERNEATH PAVEMENT, ROADS, AND PATHS. USE SCHEDULE 80 SWEEP ELBOWS PLUS SCHEDULE 80 CONDUIT TO BRING THE DIRECT BURY CONDUCTORS UP FROM HORIZONTAL LOCATION IN THE TRENCH TO VERTICAL INTO THE VAULT TOILET JUNCTION BOX.

BUILDING WIRING 1
THE WIRING METHOD IS TYPE NM (ROMEX) #12-2 WITH GROUND WHERE ALLOWED BY CODE. OTHERWISE USE #12 COPPER CONDUCTORS (HOT, NEUTRAL, AND GROUND) IN ENT OR EMT CONDUIT. BOXES SHALL BE METAL REGARDLESS OF CONDUCTOR TYPE.

INDEX SHEET

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DATE: JANUARY 2017

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MONTANA STATE PARKS

FINLEY POINT STATE PARK CAMPGROUND
REGION 1 FWP #7096123

SHEET: E 0.0

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SHEET GENERAL NOTES

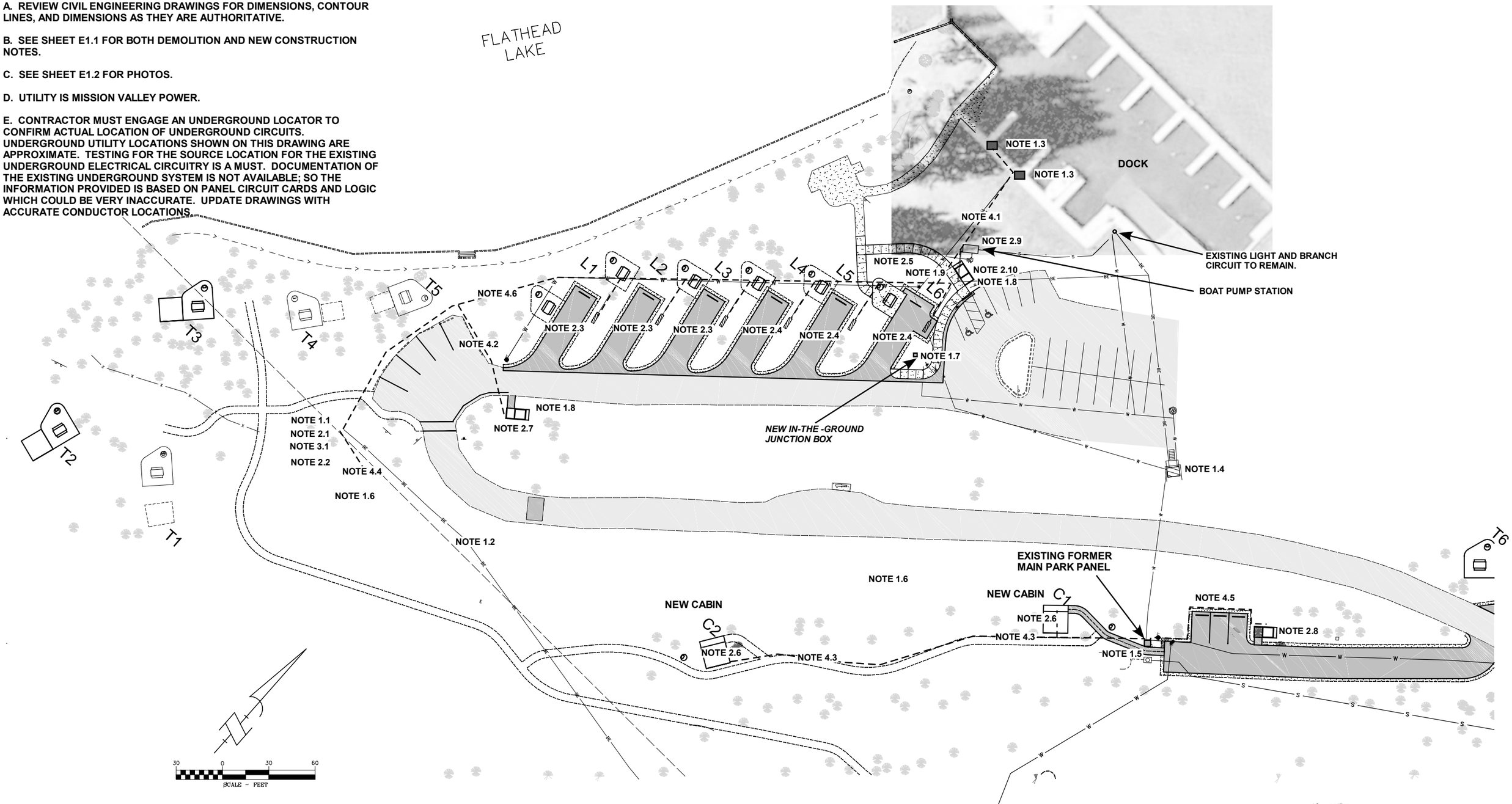
A. REVIEW CIVIL ENGINEERING DRAWINGS FOR DIMENSIONS, CONTOUR LINES, AND DIMENSIONS AS THEY ARE AUTHORITATIVE.

B. SEE SHEET E1.1 FOR BOTH DEMOLITION AND NEW CONSTRUCTION NOTES.

C. SEE SHEET E1.2 FOR PHOTOS.

D. UTILITY IS MISSION VALLEY POWER.

E. CONTRACTOR MUST ENGAGE AN UNDERGROUND LOCATOR TO CONFIRM ACTUAL LOCATION OF UNDERGROUND CIRCUITS. UNDERGROUND UTILITY LOCATIONS SHOWN ON THIS DRAWING ARE APPROXIMATE. TESTING FOR THE SOURCE LOCATION FOR THE EXISTING UNDERGROUND ELECTRICAL CIRCUITRY IS A MUST. DOCUMENTATION OF THE EXISTING UNDERGROUND SYSTEM IS NOT AVAILABLE; SO THE INFORMATION PROVIDED IS BASED ON PANEL CIRCUIT CARDS AND LOGIC WHICH COULD BE VERY INACCURATE. UPDATE DRAWINGS WITH ACCURATE CONDUCTOR LOCATIONS.



OWNER'S WORK DONE BEFORE THIS PROJECT IS IN ITALICS

LOWER AREA SITE PLAN (ELECTRICAL)

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OWNER'S WORK DONE BEFORE THIS PROJECT IS IN ITALICS

SEE NOTE J SHEET E0.0 FOR TELEPHONE WORK.

1 SHEET AREA NOTES

1.1 LOCATION OF EXISTING SERVICE, EXISTING PAD MOUNTED TRANSFORMER, AND EXISTING DISTRIBUTION PANEL.

1.2 APPROXIMATE LOCATION OF EXISTING UNDERGROUND PRIMARY SINGLE PHASE CONDUCTOR.

1.3 APPROXIMATE LOCATION OF EXISTING BOAT DOCK PEDESTALS.

1.4 LOCATION OF EXISTING PUMP HOUSE WHICH CONTAINS AN EXISTING 100 AMP LOAD CENTER.

1.5 LOCATION OF EXISTING PEDESTAL MOUNTED LOAD CENTER WHICH USED TO BE THE PARK MAIN PANEL. IT SUPPLIES NEARBY LOADS AND THE PUMP HOUSE PANEL.

1.6 THE ROUTE OF THE EXISTING UNDERGROUND FEEDER FROM THE EXISTING SERVICE (NOTE 1.1) TO THE EXISTING ORIGINAL MAIN PANEL (NOTE 1.5) IS NOT KNOWN BUT IT IS BELIEVED TO RUN UP THE HILL FROM THE EXISTING TRANSFORMER TO THE LOCATION OF THE ORIGINAL MAIN PARK PANEL.

1.7 *THE EXISTING VAULT TOILETS ARE BEING REMOVED BY THE OWNER AND THUS THE EXISTING BRANCH CIRCUIT FROM THE PUMP HOUSE TO THESE VAULT TOILETS SHALL BE PARTIALLY REMOVED. SAFETY OFF THE EXISTING BRANCH CIRCUIT OUTSIDE OF THE AREA OF WORK USING AN IN-THE-GROUND JUNCTION BOX IN THE LOCATION INDICATED.*

UPDATE PUMPHOUSE PANEL CARD.

(THIS WORK HAS BEEN DONE.)

1.8 *THIS NEW VAULT TOILET IS BEING INSTALLED BY THE OWNER.*

THE INSTALLATION OF FIXTURE 'B' IS STILL BEING DONE BY THE CONTRACTOR.

1.9. CAREFULLY PRESERVE A PORTION OF THE EXISTING UNDERGROUND CONDUCTOR SUPPLYING THE EXISTING BOAT DOCK PEDESTALS IN ORDER TO REDUCE COSTS.

IT IS BELIEVED THAT THE EXISTING CONDUCTOR RUNS BETWEEN THE EXISTING LAST RV PEDESTAL #16 AND THE BOAT DOCK PEDESTALS.

FURNISH AND INSTALL AN IN-THE-GROUND JUNCTION BOX AT THE LOCATION FOR THE CONNECTION OF THE NEW BRANCH CIRCUIT TO THE EXISTING BOAT DOCK PEDESTAL CIRCUIT.

2 SHEET CONSTRUCTION NOTES

2.1 FURNISH AND INSTALL PANEL 'A' AT THIS LOCATION IN ACCORDANCE WITH THE PANEL SCHEDULE AND THE STRUCTURE DETAIL.

2.2 FURNISH AND INSTALL CONDUCTOR 1 FROM THE NEW PANEL 'A' TO THE EXISTING UNDERGROUND FEEDER SUPPLYING THE EXISTING FORMER PARK MAIN PANEL. USE AN IN-THE-GROUND JUNCTION BOX FOR MAKING THIS CONNECTION.

2.3 FURNISH AND INSTALL CONDUCTOR 2 FROM PANEL 'A' TO SUPPLY THESE THREE NEW RV PEDESTALS.

2.4 FURNISH AND INSTALL CONDUCTOR 2 FROM PANEL 'A' TO SUPPLY THESE THREE NEW RV PEDESTALS.

2.5 FURNISH AND INSTALL CONDUCTOR 2 FROM PANEL 'A' TO THE IN-THE-GROUND JUNCTION BOX (NOTES 1.9, 4.1) IN ORDER TO REUSE THE EXISTING BRANCH CIRCUIT TO THE TWO BOAT DOCK PEDESTALS.

THE CONTRACTOR SHALL REPLACE THE EXISTING DUPLEX GFCI RECEPTACLE IN THE PEDESTAL ENCLOSURE WITH A NEW 20 AMP DUPLEX GFCI RECEPTACLE.

2.6 DEMOLISH THE TWO EXISTING 60 AMP BRANCH CIRCUITS SUPPLYING THE TWO EXISTING HOST SITE RV PEDESTALS. DEMOLISH THE EXISTING BRANCH CIRCUITS BACK TO THE EXISTING OLD PARK MAIN PANEL . RETAIN THE 2 POLE 60 AMP BREAKERS AS THEY WILL BE USED IN THE NEXT PARAGRAPH.

USING THE TWO EXISTING TWO POLE 60 AMP BREAKERS, FURNISH AND INSTALL TWO NEW BRANCH CIRCUITS USING CONDUCTOR 1, ONE FOR EACH CABIN. (THE CABINS CONTAIN PREINSTALLED LIGHTING, RECEPTACLES, AND A 100 AMP PANEL.)

CONNECT THE NEW BRANCH CIRCUITS TO THE RESPECTIVE CABIN'S PANELS. USE SURFACE MOUNTED SCHEDULE 80 PVC CONDUIT ON THE OUTSIDE OF CABIN BETWEEN BURIAL DEPTH AND THE CABIN PANEL.

2.7 FURNISH AND INSTALL CONDUCTOR 3 FROM PANEL 'A' TO THIS VAULT TOILET OUTSIDE LIGHT FIXTURE 'B'. INSTALL THE CONDUCTOR 3 IN SCHEDULE 80 PVC CONDUIT FROM BURIAL DEPTH UP TO THE LIGHT FIXTURE 'B' JUNCTION BOX. SURFACE MOUNT THE CONDUIT AND LIGHT FIXTURE ON THE OUTSIDE OF THE VAULT TOILET.

2.8 FURNISH AND INSTALL CONDUCTOR 3 FROM THE EXISTING OLD MAIN PANEL TO THIS VAULT TOILET OUTSIDE LIGHT. INSTALL THE CONDUCTOR 3 IN SCHEDULE 80 PVC CONDUIT FROM BURIAL DEPTH UP TO THE LIGHT FIXTURE JUNCTION BOX. SURFACE MOUNT THE CONDUIT AND LIGHT FIXTURE 'B' ON THE OUTSIDE OF THE VAULT TOILET.

2.9 THE OWNER WILL PROVIDE NEW POWER FROM OUTSIDE OF THE AREA OF WORK TO THE EXISTING BOAT PUMP OUT FACILITY. THE EXISTING ALARM LIGHT WILL BE REMOVED FROM THE EXISTING POLE LIGHT THAT IS BEING DEMOLISHED. THE OWNER WILL MOUNT AND POWER THE EXISTING ALARM ON THE NEW VAULT TOILET. IN THE PROCESS OF INSTALLING THE ALARM LIGHT, THE OWNER WILL INSTALL AN IN-THE-GROUND JUNCTION BOX ON THE BEHIND THE NEW VAULT TOILET. IT WILL CONTAIN 120 VOLT POWER.

(THIS WORK HAS BEEN DONE.)

2.10 FURNISH AND INSTALL FIXTURE 'B' ON THE OUTSIDE OF THE NEW VAULT TOILET. USE SURFACE MOUNTED SCHEDULE 80 PVC CONDUITS WITH #12 COPPER THWN CONDUCTORS FROM THE JUNCTION BOX INSTALLED IN NOTE 2.9 TO FIXTURE 'B'.

3 SHEET MISSION VALLEY POWER NOTES

3.1 MISSION VALLEY POWER (MVP) WILL REUSE THE EXISTING PRIMARY UNDERGROUND CABLE TO POWER A NEW 120/240 VOLT SINGLE PHASE TRANSFORMER TO POWER THE NEW AND EXISTING LOWER AREA ELECTRICAL SYSTEM.

THIS WILL REQUIRE A LARGER TRANSFORMER AND CT METERING.

THE CONTRACTOR SHALL COORDINATE WITH MVP TO DETERMINE THE SCOPE OF WORK FOR THE CONTRACTOR IN SUPPORT OF THE MVP INSTALLATION. SUCH WORK MAY INCLUDE TRENCHING, BEDDING, POURING A TRANSFORMER PAD, MOUNTING OF THE CT CAN, INSTALLING METER BASE, ETC.

IT IS ANTICIPATED THAT PANEL 'A' WOULD BE INSTALLED ON ONE SIDE OF THE STRUCTURE AND THE MVP METERING INSTALLED ON THE OTHER SIDE OF THE STRUCTURE.

THE CONTRACTOR SHALL PROTECT THE EXISTING FEEDER SUPPLYING THE EXISTING OLD PARK MAIN PANEL. THE INSTALLATION OF THE NEW TRANSFORMER WILL EXTENSIVELY DISTURB THE AREA AROUND THE EXISTING TRANSFORMER AND THUS THE EXISTING FEEDER CONDUCTORS.

ALL OF THIS WORK SHALL BE INCLUDED IN BASIC SERVICES.

4 TRENCH ROUTING

USE SLEEVES FOR ALL PATH AND ROAD CROSSINGS AS DESCRIBED ELSEWHERE. GENERAL ROUTING OF THE TRENCHING SHOWN AS FOLLOWS:

4.1 A NEW TRENCH IS NOT NEEDED IF THE EXISTING BURIED CONDUCTOR SUPPLYING THE TWO BOAT DOCK PEDESTALS CAN BE REUSED.

4.2 THIS TRENCH CONTAINS THE BRANCH CIRCUIT FOR FIXTURE 'B' ON THE OUTSIDE OF THE VAULT TOILET. NOTE THAT FOR PART OF THE DISTANCE, THIS BRANCH CIRCUIT IS LOCATED IN A JOINT USE TRENCH WITH OTHER BRANCH CIRCUITS AS INDICATED.

4.3 THIS TRENCH CONTAINS TWO BRANCH CIRCUITS FOR MOST OF THE WAY, ONE FOR EACH CABIN.

4.4 THIS TRENCH CONTAINS THE NEW FEEDER TO CONNECT TO THE EXISTING FEEDER SUPPLYING THE EXISTING OLD PARK MAIN PANEL.

4.5 THIS TRENCH CONTAINS THE BRANCH CIRCUIT FOR FIXTURE 'B' ON THE OUTSIDE OF THE VAULT TOILET.

4.6 THE TRENCH AT THIS LOCATION CONTAINS THE TWO BRANCH CIRCUITS SUPPLYING THE NEW RV PEDESTALS AND THE BRANCH CIRCUIT SUPPLYING THE NOW EXISTING IN-THE-GROUND JUNCTION BOX (SEE NOTE 1.9 THIS SHEET) AT THE WEST END BEGINNING OF THE EXISTING BOAT DOCK PEDESTAL'S BRANCH CIRCUIT.

NOTES FOR SHEET E1.0

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